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ABSTRACT

The booklet is intended to provide regular class elementary and early childhood teachers with basic information about types of handicaps and teaching strategies to use with exceptional children. An initial section considers the nature of handicaps and the degree of severity of conditions. Reviewed are the following types of exceptionalities: physical disorders (visual impairments, crippling conditions, neurological and other health impairments), communication disorders (auditory impairments, speech disorders, and language disorders), and learning deviations (mental retardation, giftedness, and learning disabilities), behavior disorders, and multiply handicaps. A second section on working with the handicapped considers such practical classroom aspects as how to act around the handicapped, dealing with medication, and making educational assessment and programing decisions. A final section provides several simulations designed to give the user some idea of what it is like to have a handicap. (CL)

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The Handicap Primer

An Introduction to
Working with Young
Handicapped Children

EC 110610

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Early Childhood Special Education
Austin Independent School District

The Austin Early Childhood
Special Education Program

THE HANDICAP PRIMER

by

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INTRODUCTION

As it is becoming increasingly common for handicapped individuals to take their places in the mainstream of our society, the teacher of young children may realistically expect to one day find a handicapped child in her classroom. This day may come sooner than she thinks.

There is nothing frightening about the exceptional (non-normal) child, but there may be apprehension on the part of the teacher who finds such a child in her class for the first time. One goal of this booklet is to provide the teacher with an overview of exceptionalities and to help her experience what it might be like to be handicapped.

The teacher is normally the first adult outside the family to have extensive contact with a young child. She has an opportunity to compare one child's behavior with another's (which family members may not have) and may thus be in a good position to judge objectively whether the particular problems a child is experiencing are serious enough to require special help. This is often a difficult decision to make, for some problems children outgrow, others they do not.

On one hand, the teacher must be very cautious in identifying as significant those problems which the child can reasonably be expected to outgrow in the normal course of development. On the other, if a significant problem does exist, identifying it as such is the first step in acting to lessen its impact (or in the case of gifted children, to allow special abilities to develop to their fullest). Knowledge of behaviors which suggest the presence of a particular exceptionality may thus assist the teacher in making more accurate judgements of the need for further evaluation. A second goal of this booklet is to provide the teacher with such knowledge.

This booklet is divided into several parts. The introductory section defines what is meant by "handicap" and introduces the reader to factors which may determine the severity of a handicap. Next comes a rather complete classification and description of the various types of exceptionalities. Following this is a section which provides some suggestions on how to act around handicapped children, how to deal with medications they may be taking, and some basic strategies to use in educational assessment and programming. The final section attempts via simulations to instill in the reader some idea of what it is like to have a handicap.

WHAT IS A HANDICAP?

A disability is some type of physical or behavioral abnormality which affects (changes) daily functioning. A few examples may help clarify this definition. A mosquito bite on one's finger would not normally be serious enough to be considered a disability. A cut finger might be a short-term disability depending on the severity of the cut, where it was located, etc. A broken finger would be a short-term disability as it would affect normal use of the hand. Amputation of a finger would be a permanent disability, as the finger is lost permanently and normal functioning includes the use of all fingers.

A handicap is distinguished from a disability in that a handicap is a disability that impairs (limits) daily functioning. A four fingered carpenter who has learned to hold his hammer differently following the loss of his finger but who still puts in a full day's work would be considered disabled but not handicapped. A carpenter who is unable to hammer following the loss of his finger and consequently quits his job would be considered handicapped.

Disabilities which become handicaps may be innate or they may be acquired after birth as a result of disease or injury. The rationale for the early identification of children with disabilities is to prevent such disabilities from turning into handicaps.

Handicaps and Learning

Because a child is disabled his ability to learn is not necessarily impaired. During the preschool years, however, learning occurs to a great degree as a result of interacting with one's environment on a "first-hand experience" level. Disabilities which limit such first-hand experiences may thus significantly limit early learning. Since development is cumulative, each stage being a foundation for the next, limits on early learning at one level may limit a child's learning at later levels, or may even keep him from reaching later levels. The young blind child who stays home, is waited on and pitied by his parents because he can't see, and is not induced to explore the world and do things for himself may well turn out to be handicapped significantly for his entire life. On the other hand, the blind child who is treated much like a normal child, who is punished when he misbehaves, praised when he tries his best, given opportunities to interact with other

children, and urged to explore and interact with his environment, may, though disabled, be able to function in a more or less normal fashion throughout his adult life.

While the importance of disabilities and handicaps must not be minimized, it should be realized that most individuals who are handicapped are quite normal in many respects. One must not let the fact that a child is handicapped interfere with one's perception of him in areas not affected by the handicap. It is probably more constructive to think of a handicapped child as being 95% normal than as 5% handicapped.

A final point to note is that not every disability or handicap will impair a child's learning. This is especially true at older ages (the elementary school years) when children are able to learn through means other than direct participation in an activity. A child with a crippled leg, though disabled, may not require any special assistance of an educational nature because of his leg, though his outside physical activity may be limited.

DEGREES OF HANDICAP SEVERITY

A number of factors may influence the severity of a handicap and consequently the amount of special help the handicapped child requires. These include the age of handicap onset, the degree of physical limitation imposed by the handicap, the presence of other handicapping conditions, and the reactions of others to the exceptional child.

Age of Handicap Onset

Whether the child is born with a physical limitation, acquires it early in life, or acquires it later in life can make a profound difference in the difficulty he has adjusting to the handicap, as well as its developmental impact. A child born blind, for example, is spared the problems he would have adjusting to a loss of sight as a teenager. On the other hand, during the childhood years the earlier a handicap appears, the greater may be its impact on development. Much learning critical for later effective functioning occurs early in life; a handicap which limits such learning may thus have a significant impact. Possessing sight for even a few months can provide an individual with a "mental picture" of the world not possessed by a congenitally blind individual, a picture which may, for example, aid his understanding of the conception of "color" and assist his learning of the left-right discrimination.

Degree of Physical Limitation

The degree of physical limitation imposed by the handicap can differ greatly from child to child. Not all deaf children are totally deaf, and not all crippled children are confined to a wheelchair. Having high but reasonable expectations for a handicapped child as a result of assessing his strengths and weaknesses can have a big influence on maximizing his abilities.

Presence of Other Handicapping Conditions

The presence of more than one handicapping condition in a given individual is not uncommon. One study of several hundred handicapped children (Wishik, 1956) found about a third to have only one handicapping condition, a third to have two, and a third to have three or more. It must not be assumed that the problems of a child with one handicap are all due to just that handicap, for it may turn out that he has other problems as well. One should also realize that having multiple handicaps confounds many times over the problems of a handicapped individual.

Reactions of Others

Another factor to consider in assessing severity is the reactions of others to the exceptionality. How others act toward a child influences how he views himself, how hard he tries, his self-expectations, etc. Two "identical" exceptional individuals treated in different ways by their parents and others from a young age and given different opportunities to develop may turn out quite differently.

It is not uncommon for other handicapping conditions, particularly behavior disorders, to develop following an initial handicap or handicaps. Presumably the reactions of others to a child's initial handicap(s) are important in the development of such a later arising secondary handicapping condition.

A final point to consider is that each of the above four factors does not exist independently but rather in the context of the others. For example, the peers of a child who becomes handicapped may have more trouble adjusting to their handicapped friend (reactions of others) than they would have had they always known him to be handicapped (age of onset).

THE CLASSIFICATION OF EXCEPTIONALITIES

The variety of possible exceptionalities may be understood using a classification scheme composed of four general areas: physical, communication, learning, and behavior exceptionalities. The physical disorder group includes visual impairments, crippling conditions, neurological (nervous system) disorders, and a miscellaneous group of other health-related conditions (known as "other health impairments"). Diagnosis of these medical conditions is generally the responsibility of a physician or other medically trained professional.

Included in the communication disorder group are auditory (hearing) impairments, speech disorders, and language disorders. The audiologist and speech pathologist are generally responsible for diagnosis of these conditions.

The learning deviations category is composed of mental retardation, giftedness, and learning disabilities. The individual who diagnoses these conditions is generally the psychologist or other assessment professional.

The behavior disorders group includes conditions known by a variety of names: emotional disturbance, behavior disturbance, autistic behavior pattern, among others. The psychologist is the professional who diagnoses these disorders.

Not infrequently an individual is affected by more than one handicapping condition. Such individuals are called multiply handicapped.

SOME EXCEPTIONALITIES YOU MAY ENCOUNTER

Some exceptionalities are obvious: if a child is crippled, it is quite apparent. Others are more difficult to detect and to understand. How a child should be taught (and can effectively learn) is not necessarily determined by his exceptionality, however some knowledge of limitations it may impose on him will be helpful to those responsible for teaching him.

On the following pages are descriptions of various exceptionalities. Each description begins with a brief definition followed by more detailed or other relevant information on the exceptionality. Each description ends with a list of behaviors the alert teacher should be aware of. These behaviors may, but do not necessarily, indicate that the specified condition is present. Teachers noting such behaviors should refer the child to the appropriate professional for further evaluation.

PHYSICAL DISORDERS

Vision Impairments

Crippling Conditions

Neurological Disorders

Other Health Impairments

Visual Impairments

Vision problems are important educationally because so much information is taken in using one's eyes.

Definition:

Blind - unable to read print
Partially sighted - able to read print in spite of limited vision

Specifics:

The above educational definitions are functional ones. Older definitions of vision handicaps were based on visual acuity (measured by an eye specialist). The educational definition of blindness may include individuals who have light, color, and movement perception in spite of the fact that they can't read print. Thus all blind individuals are not totally unsighted.

One common visual impairment, normally corrected using glasses, occurs when the image of the scene viewed doesn't focus on the retina (back of the eye). This can occur either because the eyeball is too long or short or because the cornea (lens) is distorted.

A second type of problem involves the muscles which control movement of the eyeball in its socket. Crossed eyes (one turns inward or outward) or other defects may result. Such problems may be very serious if not corrected because if the brain receives two images it will block out one, eventually leading to blindness in the unused eye. Such muscle imbalances may be corrected via glasses, surgery, or a patch (forcing the child to use the "bad" eye in order to strengthen its muscles).

Vision screening for children who have not yet learned to read may be done using directional figures such as those on a Snellen eye chart ().

What to Look For: Some vision problems, though not obvious from looking at the child, may be inferred from his behavior:

Does the child tilt his head to see better?

Does he hold objects far, close, or to the side to see them better?

Does he rub his eyes or squint?

Do his eyes water a lot?

Is he awkward in games involving eye/hand coordination?

Can he count how many children are in a group from a distance?

Crippling Conditions

Definition: Crippling conditions are those that interfere with the normal functions of bones, joints, or muscles.

Specifics: In some cases children are born with crippling defects (for example, clubfoot, a missing limb). Other crippling conditions are caused by disease or injury. Two crippling diseases are:

Arthritis - a disease causing pain and swelling in the joints.

Muscular dystrophy - a disease in which muscles are replaced by fatty tissue.

Children with crippling conditions may suffer educationally because of a decreased ability to interact with their peers and their physical environment. They also may experience peer problems if their handicaps are not visually obvious.

What to Look For: The diagnosis of these conditions is medical. A child's physician would normally be aware if the child has one of these conditions.

Neurological Disorders

Definition: Such impairments occur when part of the nervous system is damaged or incomplete. The nervous system includes the brain, spinal cord, and nerves. Some nerves carry impulses from the brain telling muscles to move and others carry impulses from sensory organs to the brain (for example, the optic nerve carries messages from the eyes).

Specifics: Neurological impairments may be congenital or they may be due to disease or injury. The result may be impaired mobility or intellectual functioning. Specific neurological handicaps include:

Cerebral palsy - a motor disability caused by damage to a specific part of the brain. This damage may also cause disorders in speech, language, writing, and other areas.

Epilepsy - a nervous system disorder which causes seizures lasting from a few seconds to several minutes. During a seizure a child may lose control of muscles, consciousness, senses, and thought. Seizures may be quite obvious to others or, if they are short and mild, may not even be noticed. Seizures can often be controlled with the proper medication.

Multiple sclerosis - a disease causing hardening of parts of the brain and spinal cord, resulting in a lack of coordination and loss of some senses.

Organic mental retardation - lowered intellectual/social functioning due to prenatal or birth factors (for example, maternal illness during pregnancy or lack of sufficient oxygen for the infant during birth). For

further information, see the section on Mental Retardation under Learning Deviations.

Polio - a disease of the spinal cord resulting in paralysis of certain muscle groups.

Spina bifida - a birth defect resulting from an incomplete closing of the backbone around the spinal cord, often resulting in paralysis of the legs and loss of bladder and bowel control.

What to Look For: The diagnosis of these conditions is medical. A child's physician would normally be aware if a child has one of these conditions.

Other Health Impairments

Children may have a variety of other health problems which limit their activity and/or require that the teacher be aware of their conditions in case particular physical problems arise. A few of these are:

Asthma	A disease of the lungs which causes attacks of difficult breathing. Attacks may come about because of an allergy, excessive physical activity, or an emotional reaction. Asthma attacks may be quite frightening to the child and last quite long (hours, or even days), but they are normally more distressing than dangerous. Attacks may be relieved by medical treatment.
Cystic fibrosis	A hereditary disease characterized by chronic infection and lung obstruction. Children with cystic fibrosis must limit their physical activity, and few survive beyond adolescence.
Diabetes	A disorder in which the liver is unable to properly store and use sugar. Diabetes may cause a loss of alertness and vitality. It can be controlled through a combination of diet, insulin injections, and a balance between exercise and rest.
Rheumatic fever	A disease characterized by inflammation in the heart, joints, and/or brain. Permanent heart damage sometimes follows.

COMMUNICATION DISORDERS

Auditory Impairments

Speech Disorders

Language Disorders

Auditory Impairments

Hearing problems are important educationally because a great deal of information is taken in through this sense.

Definition:

Deaf - hearing is nonfunctional for normal purposes

Hard-of-hearing - hearing is defective but functional either with or without use of a hearing aid

Specifics:

Some hearing losses may be specific to a given frequency range (for example, sounds of moderate pitch) or volume. Hearing losses don't necessarily occur in both ears. Two basic types of hearing loss exist.

(1) conductive loss - middle and outer ear problems in transmitting sounds to the inner ear.

(2) perceptive (sensory-neural) loss - damage to the inner ear or to the nerve taking the impulse to the brain.

A hearing aid amplifies sound - the sounds the child wants to hear as well as the background noise. It is generally most effective with conductive losses, where amplification can help. Aids are delicate instruments which are easily damaged. In addition, their batteries must be changed periodically.

The use of lip reading, sign language, and finger spelling may help those with hearing problems to communicate effectively.

What to Look For: Does the child often seem not to pay attention or follow directions?

Does he often ask "what"?

Does he seem to be able to hear fine on some days, but not on others?

Can the child hear you up close or when looking at you, but not if farther away or facing another direction?

Does the child talk very softly or very loudly?

Does the child have delayed speech or slight speech deficits?

Does the child listen with one ear toward you?

Does the child daydream a lot, or seem lazy?

Does the child seem dull and unable to keep up with others in the class?

Speech Disorders

Speech problems are significant because speech (the production of sounds) is the main form of communication for preschoolers who can't yet write, and because speech is an important aspect of the socialization experience. Speech handicapped children generally exhibit one of three types of production problems:

Articulation

Definition: Sounds or sound combinations of the language are not produced accurately. The child may substitute one sound for another, distort sounds he does produce, omit certain sounds, or add extra sounds. Examples are: "tar" for "car"
"outide" for "outside"
"sumber" for "summer"

Specifics: Such sound errors are very common in young children, but generally disappear with age.

What to Look For: A child who consistently makes so many sound errors that his speech is difficult to understand should be referred to a speech therapist.

Voice

Definition: The pitch (high/low), volume (loud/soft), or quality (hoarse/strained, nasal) of the voice is unusual.

Specifics: Voice problems are less common than articulation problems. With a voice problem speech can be understood, but there is something unusual about the child's voice. A child can be retrained to use his voice in more normal ways. Permanent damage may result if this is not done.

What to Look For: Does the child have a hoarse voice or laryngitis for more than two weeks?

Is the pitch of his voice too high or low, or not appropriate for his age or sex?

Is his voice excessively nasal? (Does he always "talk through his nose"?)

Is his voice too loud or soft?

Is his voice too breathy?

Does his voice sound strained?

Does his voice "break" at an age younger than it is expected to change (onset of puberty)?

Does he have a monotone voice?

Rate/Rhythm Disturbance

Definition: The rate and/or rhythm of speech is disturbed. The child may repeat sounds, syllables, or words, make unusual pauses, or prolong sounds. Stuttering is an extreme case of such a disturbance. The child is not necessarily aware of such problems.

Specifics: Young children may normally pass through a stage of nonfluency, and even adults hesitate and repeat themselves somewhat. Many believe that adult anxiety concerning normal nonfluency in the preschooler can contribute to a serious stuttering problem later on.

What to Look For: Is the child's speech rate or rhythm disturbance severe and persistent?

Is the child obviously aware of his difficulty in speaking?

Language Disorders

Language involves understanding meaningful phrases produced by others and expressing oneself meaningfully (verbally, in writing, using sign language, gestures, or whatever) to others. Language problems are those not due to hearing loss, intellectual deficiency, emotional/behavioral difficulties, or bilingualism. Two basic types of language problems have been identified:

Comprehension Difficulty

Definition: This is an inability to understand the meaning of words and sentences that are heard or seen (writing or signs).

Specifics: Because one must generally understand language before he can produce it himself, children with comprehension problems may also have expression problems: a child who has difficulty expressing himself may also have problems understanding what others say to him.

What to Look For: It is common for a child with a comprehension problem to show several of the behaviors listed below:

- problems following directions, especially those given to a group
- problems listening, especially to speech
- problems identifying sounds
- problems with abstract concepts (for example, categorizing, time, quantity, direction in space)
- no sense of humor
- poor social relationships
- often seems disoriented
- overreacts to small problems.

Expression Problems

Definition: This is difficulty in expressing oneself clearly in full sentences (verbally, on paper, or with signs).

Specifics: Articulation problems frequently accompany verbal expression problems (see previous section on Speech Disorders).

What to Look For: Several of the behaviors listed below may appear in a child who has expression problems:

- uses isolated words or parts of sentences when he talks
- uses many gestures to communicate
- leaves words out of sentences and uses incorrect word order
- speech indicates poorly organized thoughts
- uses few or incorrectly worded questions
- has difficulty describing pictures or his own experiences
- unable to define simple words
- uses very few words and has trouble finding words he knows to say what he wants to say
- does poorly on memory tasks (for example, nursery rhymes, songs, counting, naming colors or days of the week).

LEARNING DEVIATIONS

Mental Retardation

Giftedness

Learning Disabilities

Mental Retardation

Definition: Mental retardation is defined by a set of current behaviors which includes below average general intellectual functioning and adaptive behavior deficits, and is evident during childhood.

Specifics: Possible causes of mental retardation are many and often unknown. Some distinguish between organic mental retardation and cultural/familial retardation, the former having a known or strongly suspected medical cause and the latter having no known medical cause.

Educationally, a child is classified as educable mentally retarded if he can learn some academic concepts, has (or can develop) sufficient social adjustment to get along by himself in the community, and will likely be able to support himself at least partially as an adult. Such retardation is often not apparent until the child begins to have difficulty with his schoolwork in the early elementary grades.

A trainable retarded child is one whose educational needs cannot be met in a program for the educable mentally retarded. Such children are capable of learning self-care skills, social adjustment to home and neighborhood, and economic usefulness as adults in the home, sheltered workshop or institution.

A custodial retarded child is totally dependent on others for all his needs.

What to Look For: The retarded child will be slower to develop in many areas than the average child. Though he may not look any different, his language, social, and self-help skills may be below those of other children his age. He may also

experience social-emotional adjustment problems because of his intellectual limitations and social rejection by his peers. These deficiencies may not be as noticeable at a young age, but will become more apparent as the child grows older. Labeling children as retarded is a very sensitive issue, a job that is best left to the psychologist or other assessment professional.

Giftedness

Definition:	The gifted child displays far above average abilities in one or more areas: intelligence, artistic or musical ability, physical ability, etc.
Specifics:	It is common to find that talent in one or more non-intellectual area(s) is accompanied by high intelligence.
What to Look For:	The gifted child stands out because his exceptionality requires not remediation but rather advanced activities to help him achieve his full potential. He may show great interest in particular areas while he has seemingly none in others. He may become bored and misbehave if the work required of him is below his level or not of interest to him.

Learning Disabilities
(also called Language/Learning Disabilities)

Definition: Learning disabled individuals are those who show discrepancies between levels of achievement and intellectual abilities in specific areas. Such individuals may be quite normal in most respects (or even gifted intellectually) but have severe difficulties understanding or using spoken or written language or symbols.

Specifics: A wide variety of learning problems fall under the heading of learning disability. Many of these were formerly known by other names which emphasized that the presumed cause of the problem lay in the central nervous system (for example, minimal brain dysfunction, perceptual handicap). Such terms were not educationally helpful however, and so have been replaced by the discriptive term, learning disability. A few examples may help the reader define what is meant by this term:

- cannot comprehend spoken words (auditory aphasia)
- difficulty in reading (dyslexia) because of reversals (b looks like d, 6 like 9, and was like saw) which occurs some of the time
- difficulty in expressing concepts verbally (dysnomia)
- difficulty remembering a sequence of figures or letters presented either auditorially or visually
- difficulty with form constancy (realizing that Δ and ∇ are the same figure)

What to Look For: Learning disabilities are often difficult to detect, especially at the early childhood level. A large percentage of children with learning disabilities are initially referred for reading problems, thus relatively few children with learning disabilities are referred for special help prior to the age reading instruction begins.

Because learning disabled children are by definition of normal intelligence and generally function adequately in most areas, they may be accused of being "lazy" or "not trying" in the particular area where they do have problems. This reaction by others to an undiagnosed disability as well as the child's questioning of his own competency may lead to emotional problems.

There are certain behavioral characteristics more frequently observed in learning disabled students than in normal students. These may provide clues to the teacher that something is amiss, though not all learning disabled pupils exhibit each of these characteristics:

- attention disorders, such as inability to focus on a particular activity for very long (inattention), inability to change the focus of attention (over-attention), or inability to change behavior (perseveration)

- memory disorders, including problems remembering things presented visually or auditorially

- perceptual disorders, such as difficulty perceiving visual, auditory, tactual, or body movement and position (kinesthetic) stimuli

- behavioral disorders, such as too much movement (hyperactivity) or too little movement (hypoactivity)

- general orientation disorders, such as left-to-right progression problems, reversals, or lack of coordination

- specific learning problems in reading, math, spelling, writing, or language

- excellent ability in nonverbal tasks, such as puzzles and drawing, but extreme problems with verbal communication-or the reverse situation

BEHAVIOR DISORDERS

Behavior Disorders

Definition: Children with behavior disorders exhibit behavior which is inappropriate for their age and/or inappropriate for the situation in which it occurs to such a degree that it interferes with their own growth and development and/or the lives of others.

Specifics: A wide range of behaviors may be included in this category. Different individuals may call these children by various names: withdrawn, autistic, neurotic, schizophrenic, bad conduct problems, socially maladjusted, emotionally disturbed, delinquent. Most of these labels do not call to mind specific behaviors, reflecting the fact that behavior disorders include behaviors inappropriate for the individual or situation, rather than a particular set of actions. The educational significance of these actions is their disruption of the learning process for the child and perhaps also for the other children in his class.

What to Look For: One possible classification of behavior disorders divides them into the following four categories (Reinert, 1976):

1) overt, agressive behaviors such as kicking, hitting, or biting

2) withdrawn behaviors such as thumb-sucking, fantasizing, or absence of speech

3) defensive behaviors such as lying, cheating or task avoidance

4) disorganized behaviors such as continuing to behave in a certain way when it is no longer appropriate

All children would normally behave as described above to a limited extent.

This is not abnormal. Only when such behaviors occur frequently in the wrong place, at the wrong time, in the presence of the wrong people, and to an inappropriate degree would they be considered behavior disorders.

MULTIPLE HANDICAPS

Multiple Handicaps

Definition: Any child having two or more of the handicaps discussed above may be considered multiply handicapped. There are many possible combinations of multiple handicaps, some more prevalent than others. In some instances the degree of each handicap is equally severe educationally, while in other cases one handicap is relatively minor and is considered a secondary handicapping condition.

Specifics: Where there is a single cause for the multiple handicaps a child exhibits, it is often prenatal. Various drugs, viruses, and pollutants reaching the unborn at various stages of development may have damaging influences, making certain combinations of handicaps more common than others (for example, a deaf-blind condition caused by rubella). In other cases a specific condition (such as cerebral palsy) may result in problems in several areas (speech, motor, visual). One factor related to the prevalence of multiple handicaps is medical advances which save children who formerly might have died from severe congenital problems, or from other severe conditions in later life.

As discussed earlier, some conditions frequently show up as secondary handicaps. Speech and behavior disorders are in this category. In addition, mental retardation commonly occurs in combination with other impairments in the multiply handicapped.

What to Look For: Behaviors noted above which might indicate the presence of specific handicaps are relevant here. In addition, more serious adjustment problems may appear because of the many hurdles the multiply handicapped individual must face.

WORKING WITH THE HANDICAPPED

HOW TO ACT AROUND THE HANDICAPPED

There is somewhat of a stigma attached to being handicapped. Many individuals tend to feel sorry for those with handicaps or uncomfortable around them. In either event, the behavior of nonhandicapped individuals in the presence of handicapped persons often differs from their behavior around normal individuals. Indeed, many problems of the handicapped may be either caused or intensified by the behavior of others in their presence. Realizing this and striving, within reason, to treat the handicapped child as one would treat any other child is an important step one can take to contribute to the child's positive adjustment.

The expectations one has for a handicapped child are very important. Most individuals who work successfully with handicapped children have come to realize that such children are normal in many more ways than they are handicapped. The expectations these professionals have for the handicapped child differ from their expectations for the normal child only for behaviors the child cannot reasonably perform because of his handicap. The child confined to a wheelchair can still go on walks and field trips and participate in most games and activities enjoyed by normal children. To deprive him of such activity merely because he uses wheels rather than his legs to get around would severely limit his opportunities for physical, social and educational development.

Just as not all normal children are good at or interested in every activity that comes along, so the abilities and interests of handicapped children differ depending on their individual personalities.

The teacher of a handicapped child will often have to make decisions concerning the degree to which the child should be expected to participate in a given activity. The teacher should not allow the child to use his handicap as an excuse to avoid doing what the teacher can reasonably demand of him.

The following are some suggestions for guiding teacher behavior towards a handicapped child:

1. Don't worry if you don't know everything about a handicap that one of your children has. As you work with him, his parents, and possibly his doctors, you will learn more about the problem, what caused it, and what can be done about it.

2. Don't be afraid. Children can sense everything. Be confident, sure and calm.

3. Don't geel sorry for the child. Generally he is not sorry for himself and is quite happy.

4. Make him feel like a member of the classroom.

5. Don't do something <u>for</u> him unless you know that because of his handicap it is impossible for him to do it. He needs to do things for himself. He needs to become independent in the long run, even though right now he may not want to do things to help him achieve this independence.

6. If a handicapped child can perform an activity but is very slow at it, schedule time to allow him to do the activity at his own pace. He will never get any faster unless he practices.

7. When working with a group of children, it may be necessary to lower the level of questions asked of the handicapped child if the child has a problem with intellectual functioning. Help to arrange successful experiences for him.

8. Explain to the other children why you may have to do special things for certain children. Children are good about understanding and cooperating.

9. Have close contact with parents. It is especially important that you and the child's parents are behaving toward the child in a consistent manner.

10. Don't talk about a child and his problem(s) in front of him or his classmates.

11. In general, treat him like you would any other child.

MEDICATIONS

It is not uncommon for children with some types of handicaps to take medication on a regular basis. A few of the more common medications and their uses are:

Dilantin	seizure control
Mysoline	seizure control
Phenobarbitol	seizure control
Ritalin	hyperactivity control
Valium	tranquilizer - tension and anxiety reduction

All medications should be carefully administered. They should be clearly marked so the right child receives the proper amount of his medication. It is important that medication be given on time, especially the seizure control drugs. Medications may cause other behaviors in children, such as incoordination, headaches, stomachaches, irritability, etc.

Medications must be kept in a safe place and brought to school by an adult, not by the child. Your school or center may have specific rules concerning the administration of medication. Parent and physician consent forms may be required for medication administered in your program. Do not administer <u>any</u> medication other than first aid without having a signed form indicating:

1. Name of medication to be administered.
2. Time for medication to be administered.
3. Amount to be administered.
4. A parent's signature indicating permission to administer the medication according to the above instructions.
5. Date form was signed.
6. Witness to signature other than teacher (if possible).

IN THE CLASSROOM: EDUCATIONAL ASSESSMENT AND PROGRAMMING

One of the more difficult aspects of providing an appropriate education for a young handicapped child lies in assessing his abilities and skills. Most educational assessment instruments make certain assumptions about the child (e.g., he can hear the directions, use the materials, move his arm and hand as required to make a response) which may make them inappropriate to use with certain children. A less obvious, but perhaps more serious, danger is that an unnoticed handicapping condition may cause a child to do poorly on a test without an awareness on the part of the examiner that this is occurring. For example, a particular child may hear but not understand fully the directions for the test and thus perform only part of the required tasks. A more thorough discussion of problems in early childhood assessment is provided by Hunter, Alsup, Brown, and Griffith (1977).

Observation of the child in a classroom setting has become a popular means of assessment in early childhood, fulfilling in large measure many of the functions of more standardized assessment procedures used with older children. The basic plan in using observation as an assessment tool is to list the knowledge and skills which the child should have, observe him long enough and in a large enough variety of situations to get an idea of which of these he does possess, and then develop learning objectives and plan associated activities to help him develop those he does not.

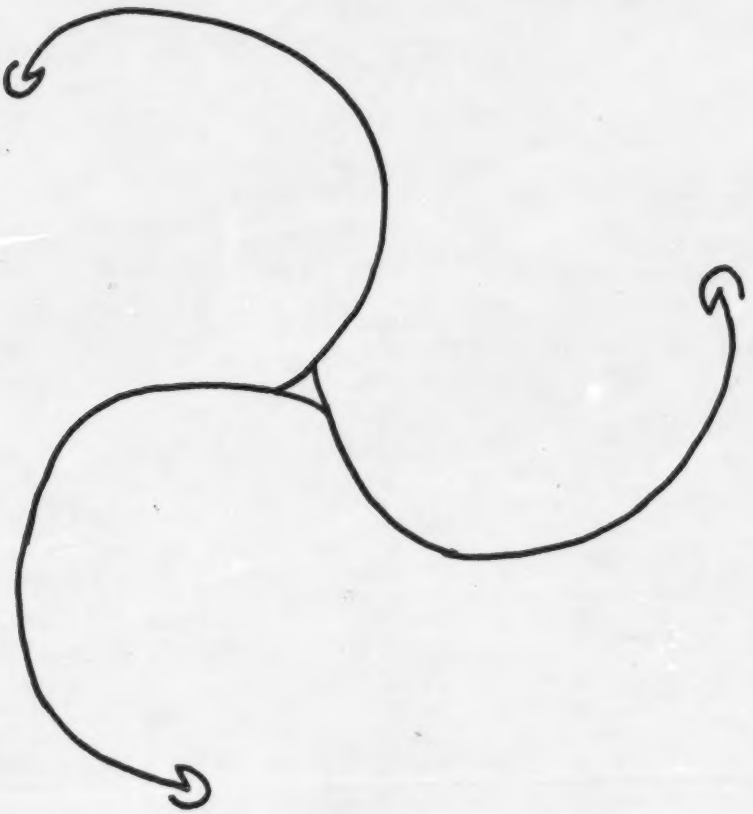
In order to determine what knowledge and skills a child of a given age should have, a developmental schedule may be consulted (Appendices A and B). Such schedules are listings of specific knowledge and skills which "average" children possess at given ages. They are based on extensive study of many children.

Developmental schedules are also useful for determining what to teach the child once the observation is completed. While all children do not develop in a given area at the same rate, the sequence of most development is fairly standard. Thus most children are first able to go up a set of stairs on all fours, then to go up the stairs using a hand rail and putting both feet on each step, then to go up the stairs alternating feet, then to go down the stairs alternating feet. Though the handicapped child may accomplish each of these activities at a later age than the normal child, if he is going to accomplish them he will do so in the same order as the normal child. The normal sequence of development in a given area thus can be a guide for designing a child's learning environment once his level of development in a given area is determined.

WHAT'S IT LIKE TO BE HANDICAPPED?

It is impossible for a normal individual to fully experience what it is like to be handicapped, however some small appreciation of the frustrations handicapped children experience may help the teacher develop a little extra patience and insight for working with them. Rather than focusing on the obvious problems of specific handicaps (such as the mobility problems of those confined to wheelchairs), the simulations that follow will attempt to help the reader get an idea of the frustrations experienced by a child who has difficulty learning because of limitations associated with his handicap. While these simulations are not intended to duplicate exactly the experiences of the handicapped child, the feeling of frustration the reader experiences here may be similar to that experienced by a handicapped child.

Today we're going to begin learning a new alphabet. We'll learn just one letter a day to keep it simple. Here is the first letter. Study it for a few seconds.



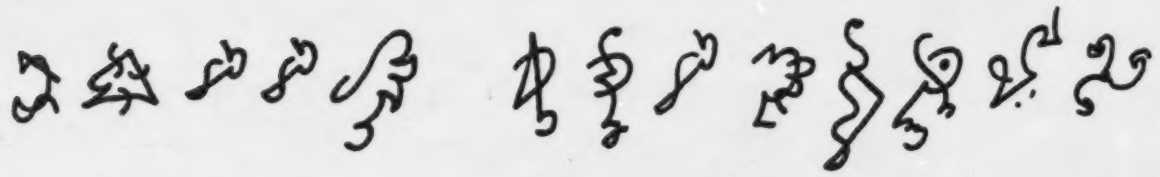
45

Now that you have learned the letter, draw it from memory in the space below.

That was easy, wasn't it. Now check back to see how well you did. Did all your curves go in the right direction? Do they come out of the center triangle correctly? Are they all the same size?

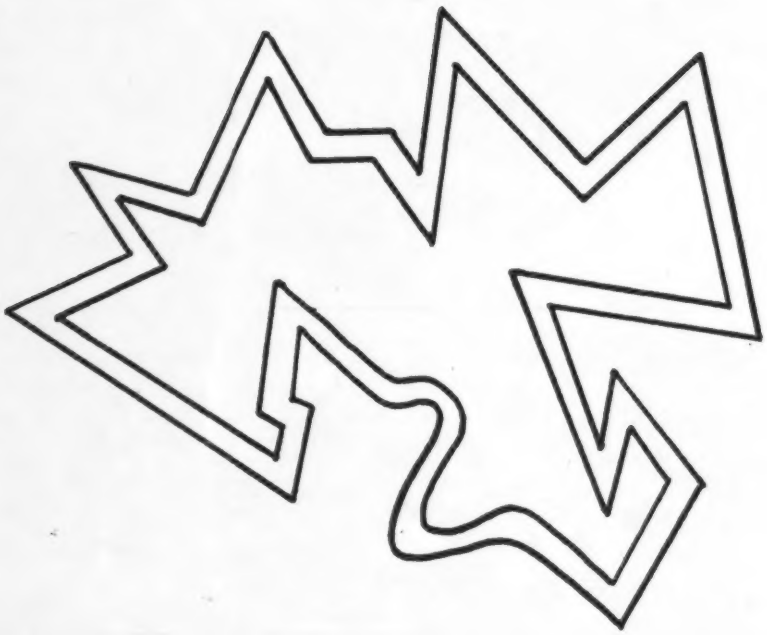
46

Since you seem to have had some difficulty reproducing the letter, we'll give you an easier task. The following message is written in our new alphabet. Copy it below.



There, wasn't that simple. You did put all the curves in the correct direction, didn't you? Do all your lines cross in the right places? You should have taken no longer than a minute to copy the message.

If you had any problem with the message, perhaps you need some help on a simple tracing task. Using your non-dominant hand, trace between the lines in the figure below.



I certainly hope your line was nice and straight and did not touch the outside or inside lines of the figure.

h s e u h w n o o T m r o e n
T a t ' o g i t g r o s e r d g
r i f n w. i e f m a i

e i s. e h t y b o
e c e R e s o l
x r s a t r e w.

Once upon a time there was an old frog who lived in a hollow
tree. He had lived there a long time, ever since a tornado
blew him from there -- family his with lived had he where away far swamp the
twice cousin a and, grandmother maternal, daughter 1, sons 2, wife his
tree the near him dropped winds the when injured been having
removed. Now, home back way the for search to able wasn't he
his for searching do to weak and old too was he, healed had injuries
an and flies mostly eating, life sad very a lived He. family
grasshopper occasional.

One day came boys young of expedition an by, spied, him, crept
off him carried and, him over sack a threw, behind up cautiously
a in up end shall I Now", frog old the thought "! woe, Oh"
given about had he as just "!again free be never and terrarium
small a noticed he, again woods the seeing ever of hope all up
through fit to large too was He. sack the of corner one in hole
so enough it fear to managed he strength his all using by but
plop a with around the on landed He. through squeezed just he

An swe rthef ol lowingq use tions fro mmem ory.

1. Hom many family wewders liveb with the olb frop?
2. What bib he eat?
3. How beb the doys caqture him?
4. How bib he escaqe?

I certainly hope you were able to answer all the questions correctly. If you did not, perhaps some extra work can be arranged for you to help increase your comprehension level.

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Hunter, L. R., Alsup, R. J., Brown, L., and Griffith, J. A teacher's thumbnail guide to standardized tests in early childhood education. Outreach Project, Early Childhood Special Education, Austin Independent School District, Austin, Texas, Fall, 1977.

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Project PREM. The student with handicaps: Definition, behavioral characteristics, and educational implications. College of Education, University of Texas at Austin, 1977.

Reinert, H. R. Children in conflict. St. Louis: C. V. Mosby Co., 1976, cited in Project PREM, The student with handicaps: Definitions, behavioral characteristics, and educational implications.

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Wishik, S. M. Georgia study of handicapped children: A report on the study of prevalence, disability, needs, resources, and contributing factors, cited in Cardwell, V. E. Cerebral palsy: Advances in understanding and care. New York: Association for the Aid of Crippled Children, 1956.

APPENDICES

APPENDIX A

DEVELOPMENTAL SCHEDULES

The following sources contain information on the normal sequence of development in various areas. While this list is not exhaustive, it does contain some of the most commonly used sources of developmental information.

Bayley, N. Bayley Scales of Infant Development. New York, N.Y.: The Psychological Corporation, 1969.

Cattell, P. Infant Intelligence Scale. New York: The Psychological Corporation, 1940.

Doll, E. Preschool Attainment Record. Circle Pines, Minn.: American Guidance Service, 1965.

Doll, E. The Vineland Social Maturity Scale. Circle Pines, Minn.: American Guidance Service, 1965.

Frankenburg, W. K., Dodds, J. B. and Fandal, A. W. Denver Develop-Mental Screening Test. Denver: University of Colorado Medical Center, 1970.

Gesell, A., Halverson, H. M., Thompson, H., Ilg, F. L., Castner, B. M., Omes, L. B., Amatruda, C. S. The First Five Years Of Life. New York: Harper & Row, 1940

Gesell, A., & Ilg, F. L. The Child From Five to Ten. New York, N.Y.: Harper & Brothers, 1946.

Hurlock, E. B. Child Development. New York: McGraw-Hill, 1964.

Slosson, R. L. Slosson Intelligence Test for Children and Adults. New York: Slosson Educational Publishers, 1971

Stutsman, R. Merrill-Palmer Scale of Mental Tests. Los Angeles: Western Psychological Services, 1948.

APPENDIX B

DEVELOPMENTAL ASSESSMENT CHECKLISTS

From information such as that given Appendix A, preschool programs for the handicapped often compile their own developmental assessment checklists. In some cases these checklists are part of larger curriculum guides. Some such checklists/ guides and where they may be obtained are listed below.

Anderson, J., Marshaw, E., Terry, L., Thomason, B., and Simonton, G. Curriculum Guide: Individualized Instruction for Preschool Handicapped Children. Ruston, Louisiana: North Central Louisiana Model Preschool Program for Handicapped Children, (no date) (Arlington Street, Ruston, Louisiana 71270)

Austin Early Childhood Special Education Program. Casis Teacher Checklist: 0-4 Years; 4-7 Years (2 scales). Austin, Texas: Author, 1976. (2710 Exposition, Austin, Texas 78703)

Becker, R. W. Checklist of Coping Skills. Austin, Texas: Austin Early Childhood Special Education Program, 1976. (2710 Exposition, Austin, Texas 78703)

Cadman, L. A., Fullerton, H. M., and Wylie, E. J. Teacher's Handbook: A Handbook for a Pre-School Home Intervention Program. Wichita Falls, Texas: Region IX Education Service Center, 1977 (3014 Old Seymour Road, Wichita Falls, Texas 76309)

Donahue, M., Montgomery, J. D., Keiser, A. F., Roecker, V. L., Smith, L. I., and Walden, M. F. Behavioral Developmental Profile: Manual I. Marshalltown, Iowa: Area Education Agency 6, (no date) (Department of Special Education, 9 Westwood Drive, Marshalltown, Iowa 50158)

Early Childhood Education and Home Intervention Program. Paraprofessional Handbook: A Compilation of Materials Relevant to Staff Training. Alamosa, Colorado: San Luis Valley Board of Cooperative Educational Services, 1976. (22nd & San Juan, Alamosa, Colorado 81101)

Project PEPP. Motor Enrichment Book. Oklahoma City, Oklahoma: Author, (no date) (Special Services Office, Putnam City Schools, 5501 N.W. 39th, Oklahoma City, Oklahoma 73122)

Waggoner, L. Developmental Scale From Birth to Six Years: An Aid to Intervention Programs for Handicapped Children. Lubbock, Texas: Developmental Education Birth Through Two, (no date) (Lubbock Independent School District, 1628 19th Street, Lubbock, Texas 79401)

GLOSSARY*/INDEX

acuity: keenness of sight, hearing or touch.

agnosia: inability to interpret sensory impression; loss of ability to recognize and identify familiar objects through a particular sense organ.

allergy: a physical reaction to a specific substance, such as certain types of food, drugs, animal fur, grasses, or insect bites.

amblyopia: poor vision from any cause.

anoxia: deficiency or lack of oxygen to the brain.

aphasia: loss of ability to comprehend, manipulate or express words in speech, writing or signs. Usually associated with injury or disease in brain centers controlling such processes.

apraxia: loss or partial loss of the ability to perform purposeful movements in a coordinated manner in the absence of paralysis, cerebral palsy, or sensory loss.

arthritis: p. 13

articulation problems: p. 23

association: auditory association: the ability to relate spoken words in a meaningful way.

visual association: the process whereby a child sees the relationships between concepts presented visually.

asthma: p. 17

astigmatism: a defect in the curvature of the lens of the eye causing distorted images.

auditory closure: the act or ability to accurately conceptualize in a complete and meaningful form words and/or sounds which are perceived in incomplete form.

* Adapted from M. Sloan, Glossary: Terms associated with exceptional children.

auditory discrimination: ability to identify and accurately choose between sounds of different frequency (pitch), intensity (volume) and pattern. Includes the ability to distinguish one speech sound from another.

auditory memory: memory for information received via the ears.

auditory perception: the ability to interpret or organize the sensory data received via the ears.

auditory reception: ability to derive meaning from orally presented material.

aura (epileptic): a subjective sensation that precedes and marks the onset of an epileptic attack.

autism: a childhood disorder rendering the child noncummunicative and withdrawn; behavior is frequently bizzare, compulsive, repetitive, and nonpurposive.

autistic: p. 39

bilateral: involving both sides; the use of both sides in a simultaneous and parallel manner.

behavior modification: a technique of changing human behavior based on the theory of operant behavior and conditioning. Careful observation of events preceding and following the behavior in question is required. The environment is manipulated to reinforce the desired responses, thereby bringing about the desired change in behavior.

blind: p. 11

brain damage: any structural injury or insult to the brain, whether by surgery, accident, or disease.

cataract: a condition of the eye in which the crystalline lens and/or its capsule become opaque with consequent dimming of vision.

central nervous system: (C.N.S.) the brain and the spinal cord. The neural tissue which comprises the brain and spinal cord.

cerebral palsy: p. 15

cleft palate: congenital fissure of the roof of the mouth, often associated with cleft lip (harelip).

clubfoot: a bony deformity of the foot developed before birth or early in life.

comprehension difficulty: p. 25

conductive loss (hearing): p. 21

convulsive disorder: a clinical syndrome, the central feature of which is recurrent seizures or convulsions: recurrent disturbances of consciousness with or without muscular components, and accompanied by changes in the electrical potentials of the brain.

cultural/familial retardation: p. 29

cystic fibrosis: p. 17

deaf: p. 21

decibel: a relative measure of the intensity of sounds; zero decibel represents normal hearing.

diabetes: p. 17

directionality: awareness of the up-and-down axis (verticality) and awareness of the relative position of one side of the body versus the other (laterality).

disability: p. 3

discrimination: the process of detecting differences in stimuli, especially, sensory discriminations.

: auditory discrimination: sometimes referred to as ear training, involves identifying sounds with respect to their likenesses and differences.

: visual discrimination: discriminating between different objects, forms, and/or letter symbols.

Down's syndrome: a congenital syndrome of mental retardation associated with various physical signs (a flat skull, oblique eye slit, stubby fingers, short torso with wide hips, eipcanthal folds of eyelids, and fissured tongue).

dysfunction: abnormal or imperfect behavior of an organ.

dyslexia: partial inability to read, or to understand what one reads silently or aloud.

dysnomia: p. 33

echolalia: apparently uncontrollable response characterized by repeating a word or sentence just spoken by another person.

emotionally disturbed: p. 39

epilepsy: p. 15

expression problems: p. 25

eye-hand coordination skills: this skill consists of the eyes steering the hand(s) accurately and skillfully through the three coordinates of space: right and left, up and down, fore and aft, which are matched with the coordinates of the body and vision for the purpose of manipulating tools or forming the symbols of language. It enables one to make visual discriminations of size, shape, texture, and object location. It is dependent upon use, practice, and integration of the eyes and hands as paired learning tools.

figure-ground: tendency of one part of a perceptual configuration to stand out clearly while the remainder forms a background.

figure-ground perception: the accurate selection from the mass of incoming stimuli, which should be the center of attention. These selected stimuli form the figure in the person's perceptual field, while the majority of stimuli form a dimly perceived ground. The figure is that part of the field of perception that is the center of the observer's attention. A disturbance in figure-ground may result because the individual confuses figure and background, reverses them, or is unable to see any difference between figure and ground.

form constancy: p. 33

grand mal seizure: an epileptic seizure in which the convulsions are severe and widespread with rather prolonged loss of awareness.

gross motor activity: an activity or output in which groups of large muscles are used and the factors of rhythm and balance are primary.

handicap: p. 3

hard-of-hearing: p. 21

hearing aid: p. 21

hydrocephalus: a condition of excess fluid within the brain which may be related to mental retardation or convulsions.

hyperactivity: excessive activity - the individual seems to have a surplus of energy.

: disorganized, disruptive, and unpredictable behavior; overreaction to stimuli.

hyperopia (farsightedness): a visual impairment in which the point of focus for rays of light falls behind the retina. Hyperopic individuals can see distant objects with less strain than near objects.

Jacksonian epilepsy: a form of eiplepsy in which the seizure manifests no loss of awareness but a definite course or series of convulsions affecting a limited region.

kinesthesis: the sense that informs one of movements of the body or of its several members.

memory span: the number of related or unrelated items that can be recalled immediately after presentation.

meningitis: inflammation of the meninges (the membrane covering the brain and spinal cord) sometimes affecting vision, hearing, and/or intelligence.

midline: the child's own center of gravity; unless he has a well defined midline as the result of well developed laterality, his space structure will not be stabilized and he may have difficulty orienting himself to his surroundings.

minimal brain dysfunction: p. 39

modality: an avenue of acquiring sensation; visual, auditory, tactile, kinesthetic, olfactory, and gustatory are the most common sense modalities.

mongolism: same as Down's syndrome.

multiple sclerosis: p. 15

muscular dystrophy: p. 13

myopia (nearsightedness): a visual impairment in which the point of focus for rays of light from distant objects falls in front of the retina. Myopic individuals can see at close distances without visual correction.

myringectomy: the operation of cutting a small hole in the ear drum; done prior to the insertion of a pressure equalization tube.

neurological examination: an examination of sensory or motor responses, especially of the reflexes, to determine whether there are localized impairments of the nervous system.

neurotic: p. 39

observation: p. 57

organic mental retardation: p. 15, 29

paralysis: loss of muscle control and/or feeling because of nerve damage or disease.

partially sighted: p. 11

perception: the interpretation of sensory information. The mechanism by which the intellect recognizes and makes sense out of sensory stimulation. The accurate mental association of present stimuli with memories of past experiences.

perceptive loss (hearing): p. 21

perceptual constancy: the accurate interpretation of objects as being the same in spite of their being sensed in various ways (i.e., being turned, partially concealed, etc.)

perceptual-motor: the perceptual-motor process includes input (sensory or perceptual activities) and output (motor or muscular activities). A division of the two is impossible, for anything that happens to one area automatically affects the other. Any total activity includes input, integration, output, and feedback.

perceptually handicapped: a perceptual handicap, in the auditory, visual, or tactile modalities of learning, or in motor response. The perceptual handicap may be receptive (taking in), expressive (giving out or responding), or associative (giving meaning).

perseveration: continuing to behave or respond in a certain way when it is no longer appropriate.

petit mal seizure: an epileptic seizure in which there may be only momentary dizziness, black-out, or some automatic action of which the patient has no knowledge.

phenylketonuria (PKU): a disease caused by an inherited abnormality in amino-acid metabolism; may cause mental retardation.

phonics: the system of relating speech sounds to specific letters or letter combinations.

PKU: see phenylketonuria

polio: p. 16

proprioception: the reception of stimuli arising within the body; sensation is received by nerve endings in muscles, tendons, and joints which are sensitive to alterations in muscular tension.

prosthesis: the replacement of an absent part of the body by an artificial one.

psychomotor: pertaining to the motor effects of psychological processes. Psychomotor tests are tests of motor skill which depend upon sensory or perceptual motor coordination.

psychomotor epilepsy: a form of epilepsy in which the seizures consist of purposeful but inappropriate acts; a difficult form to diagnose and control.

punishment: a procedure to weaken (decrease the frequency of) a behavior by presenting something aversive following it (positive punishment) or removing something positive following it (negative punishment).

rate/rhythm disturbance: p. 24

recessive trait: a trait, controlled by heredity, that remains latent or subordinate to a dominant characteristic.

redundancy: the art or presenting the same information to as many of the senses as simultaneously as possible in a given task. Example: When tracing a square on sandpaper with the finger, a child sees the squre, hears the movement of his finger across the rough surface, feels the tactual contact of his finger with the paper, and also feels the kinesthetic or muscular movements in his hand and arm.

reinforcement: a procedure to strengthen (increase the frequency of) a behavior by presenting something positive following it (positive reinforcement) or removing something aversive following it (negative reinforcement).

remediation: that function which redirects or circumvents an impaired procedure in learning. It implies compensatory methods which facilitate learning rather than cure learning disorders.

retina: the back of the inside of the eye; contains the light sensitive cells which provide input to the optic nerve.

reversal: a transposition of letters. Example: b for d.

rheumatic fever: p. 17

rotations: the turning around of letters in a word. Example: p for d.

rubella: German measles.

schizophrenic: p. 39

seizure: p. 15

sensory-motor: pertaining to the combined functioning of sense modalities and motor mechanisms; distinguished from psychomotor.

sensory-motor ability: the ability to act and perform as directed by the senses; the ability to hear and do things in response to a given stimulus.

shunt: a tube which may serve to move excess fluid from one place to another, as from the brain to the stomach or intestines.

socially maladjusted: p. 39

spasticity: excessive tension of the muscles and heightened resistance to flexion or extension, as in cerebral palsy.

specific language (or learning) disability: usually the term is applied to those who have found it very difficult to learn to read and spell, but who are otherwise intelligent, and usually learn arithmetic more readily. More recently any language deficit, oral, visual, or auditory, is referred to by this term.

spina bifida: p. 16

splinter skill: a skill learned in isolation from the entire network of skills which it is normally a part of. A splinter skill possessed by a child in a particular area is typically at a developmentally higher level than the level at which the child normally functions in that area.

strabismus (crossed eyes): lack of coordination of the eye muscles so that the two eyes do not focus on the same point.

stuttering: p. 24

task analysis: the technique of carefully examining a particular task to discover its components and the processes required to perform it.

telegraphic speech: a deficit in verbal language expression whereby the learner speaks like a telegram reads, i.e., hungry--give money--go eat.

tonic: characterized by contraction of a muscle sufficient to keep the muscle taut but not sufficient to cause movement.

tubes (pressure equalization tubes in ears): placing tiny tubes through small holes in the ear drums; these serve to drain off excess fluid.

visual-motor integration: the ability to relate visual stimuli to motor responses in an appropriate way.

voice problems: p. 23

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